

Remarks/Arguments

Claims 1-7 are pending and have been rejected. Claims 1 and 5 have been amended and claim 4 canceled above. Applicants respectfully request reconsideration of the rejections in view of the amendment above and the remarks below.

Claims 1-7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Gil, et al. (5,066,500). Applicants traverse this rejection for the reasons set forth below.

Gil, et al. teaches the supplementation of infant formula with nucleosides and/or nucleotides, specifically 0.28-2.8 mg/dl uridine and/or uridine phosphate, 0.04-0.50 mg/dl guanosine and/or guanosine phosphate, 0.64-1.43 mg/dl adenosine and/or adenosine phosphate, 0.53-1.53 mg/dl cytidine and/or cytidine phosphate, and 0-0.29 mg/dl inosine and/or inosine phosphate. This reference does not state how much of each nucleoside should be used and how much of each nucleotide, if any, should be used. In fact this reference states that nucleosides are more effective than nucleotides (col. 6, lines 39-51). Therefore, all or most of the above concentrations may be nucleosides.

Applicants' invention is an infant formula, and method of using same, which comprises the claimed concentrations of CMP, GMP, AMP, UMP and IMP. Nowhere does Gil, et al. teach an infant formula specifically containing these concentrations of these nucleotides. In the disclosure of the reference patent, including all its examples, nucleosides and nucleotides are lumped together without clearly stating how much of each is included. The reference does not specifically set forth concentration ranges of CMP, GMP, AMP, UMP and IMP for use in an infant formula.

Gil, et al. does state concentrations of CMP, GMP, AMP, UMP and IMP in human milk, including a range of 0.04-0.21 mg/dl GMP, and further states that the patented invention uses nucleosides/nucleotides in the range that they are present in human milk (ref. col 8, lines 61-67). This would seem to suggest that the patented invention should contain 0.04-0.21 mg/dl GMP. Applicants claim a formula comprising 2.4 mg/L to 8.0 mg/L of GMP, which is 0.24 to 0.80 mg/dl. Therefore, the cited reference clearly suggests using less GMP than the claimed invention.

Applicants have discovered that an infant formula comprising the claimed concentrations of CMP, GMP, AMP, UMP and IMP is nutritionally beneficial, and these benefits do not depend on the inclusion of nucleosides. In contrast, the cited reference teaches that nucleosides are preferred to nucleotides, and does not teach that nucleotides alone can provide the desired benefits. Furthermore, this reference teaches away from the GMP concentration claimed by Applicants.

For all the foregoing reasons, Gil, et al. fails to teach or suggest the claimed invention. Since this reference fails to anticipate the claimed invention as a whole, Applicants respectfully request withdrawal of the rejection of claims 1-7 under § 102(b).

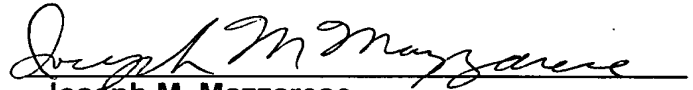
Claims 4-6 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Kuhlman, et al. (6,913,778). Applicants traverse.

Claim 4 has been canceled and claims 5-6 made to depend on claim 1. Therefore, the limitations of claim 1 are incorporated into claims 5-6. The Kuhlman, et al. patent does not teach the concentration ranges of claim 1, and, therefore, does not anticipate claims 5-6. Applicants respectfully request the withdrawal of this rejection.

Claims 1 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuhlmann, et al. Applicants traverse this rejection for the reasons set forth below.

The Kuhlmann, et al. reference discloses an infant formula containing CMP, GMP, AMP, UMP and IMP. However, the amount of CMP in the reference formula (16.5 mg/L) is above the range of 3.2-15.4 mg/L in Applicants' claim 1, and the amount of GMP (2.0 mg/L) is below the claimed range of 2.4-8.0 mg/L. Therefore, the invention as a whole is not disclosed. Furthermore, the benefits of adding nucleotides is not disclosed in this reference, so there would be no reason for one skilled in the art who reads this reference to alter the concentrations to achieve the presently claimed invention. Nothing in this reference would lead or motivate one to make the claimed invention. Absent a suggestion or motivation to make the claimed invention, the invention is not obvious. Withdrawal of this rejection of claims 1 and 7 under § 103(a) is respectfully requested.

For all the foregoing reasons, Applicants believe that claims 1-3 and 5-7 are patentable over the cited art and earnestly solicit allowance thereof at an early date.



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